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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL For FY 2006

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 1,740.00

Complete if Known

Application Number 09/646,194-Conf. #5757
Filing Date September 14, 2000
First Named Inventor Hisashi Saiga
Examiner Name Basom, Blaine T.
Art Unit 2173
Attorney Docket No. 55051RCE4(71117)

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify):
☒ Deposit Account Deposit Account Number: 04-1105 Deposit Account Name: Edwards Angell Palmer & Dodge LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee
☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

| Application Type | FILING FEES | | SEARCH FEES | | EXAMINATION FEES | | Fees Paid (\$) |
|------------------|-------------|-----------------------|-------------|-----------------------|------------------|-----------------------|----------------|
| | Fee (\$) | Small Entity Fee (\$) | Fee (\$) | Small Entity Fee (\$) | Fee (\$) | Small Entity Fee (\$) | |
| Utility | 300 | 150 | 500 | 250 | 200 | 100 | |
| Design | 200 | 100 | 100 | 50 | 130 | 65 | |
| Plant | 200 | 100 | 300 | 150 | 160 | 80 | |
| Reissue | 300 | 150 | 500 | 250 | 600 | 300 | |
| Provisional | 200 | 100 | 0 | 0 | 0 | 0 | |

2. EXCESS CLAIM FEES

| Fee Description | Fee (\$) | Small Entity Fee (\$) |
|--|----------|-----------------------|
| Each claim over 20 (including Reissues) | 50 | 25 |
| Each independent claim over 3 (including Reissues) | 200 | 100 |
| Multiple dependent claims | 360 | 180 |

Total Claims Extra Claims Fee (\$) Fee Paid (\$)

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims Extra Claims Fee (\$) Fee Paid (\$)

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets Extra Sheets Number of each additional 50 or fraction thereof Fee (\$) Fee Paid (\$)
- 100 = /50 (round up to a whole number) x =

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Extension of Time to Respond within Third Month less
2254 fee previously paid

930.00

Other (e.g., late filing surcharge): 1801 Request for continued examination (RCE) (see 37 ...

810.00

SUBMITTED BY

Signature David A. Tucker Registration No. 27,840 Telephone (617) 517-5534
Name (Print/Type) David A. Tucker Date April 25, 2008

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Attorney Docket No. 55051RCE3(71117)
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



APPLICANT(S): H. Saiga, et al.
SERIAL NO.: 09/646,194 EXAMINER: Basom, Blaine T.
FILED: September 14, 2000 GROUP: 2173
FOR: DATA DISPLAYING DEVICE

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 (Express Mail Label No. **EM 006543288 US**), and is addressed to Mail Stop: RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on February 25, 2008.

By: Kathryn Grindrod
Kathryn Grindrod

MAIL STOP: AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDMENT AFTER FINAL REJECTION UNDER 37 CFR 1.116

In response to the Official Action currently outstanding with regard to the above-identified case, which Official Action the Examiner has designated as being FINAL, Applicants respectfully request that the above-identified application be amended as follows so as to place it in condition for allowance, or at least in better form for Appeal pursuant to 37 CFR 1.116:

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IN THE CLAIMS

Please amend the claims so as to read as follows:

1-27. (Canceled, without prejudice)

28. (Currently Amended) A data storage medium for use with a display device, said data storage medium having a plurality of pre-specified data units that together define a single complete document recorded thereon,

wherein

each pre-specified data unit includes (i) display elements for display by the display device, and (ii) management elements associated with said display elements, said management elements including all information necessary for the display device to select among the display elements for display, including a display of selected ones or contiguous groups of said display elements in a predetermined sequence as a scroll display, and

wherein

said information for selecting among the display elements for scroll display defines a plurality of intervals that together form a scroll path along which said scroll display is to be conducted, the intervals forming said scroll path being specified by line segments respectively defined by coordinate values of a starting point and an end point in a coordinate system defined by said pre-specified unit according to coordinate values assigned to the display elements in said pre-specified unit.

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29. Canceled, without prejudice.

30. Canceled, without prejudice.

31. (Previously Presented) A data storage medium as defined in claim 28, characterized in that the information for selecting among the display elements or contiguous groups of display elements for scroll display includes information for linking a first scroll display path with another scroll display path.

32. (Currently Amended) A data storage medium as defined in Claim 28,
characterized in that for use with a display device,
~~said data storage medium having at least one pre-specified data unit recorded thereon, each said pre-specified data unit including display elements to be displayed by said display device, and management elements associated with said display elements for controlling the display, including the scroll display, of said display elements or contiguous groups of said display elements, wherein said management elements include elements for controlling a scroll display speed.~~

33. (Previously Presented) A data storage medium as defined in claim 28, characterized in that the management elements include management elements associated with selected areas of said coordinate system defined by said pre-specified unit associated with said selected ones or said contiguous groupings of said display elements for scroll display.

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34. (Previously Presented) A data storage medium
as defined in claim 28, characterized in that the management
elements include management elements specifying a scale of
enlargement or reduction of said display elements or contiguous
groupings of display elements located along a scroll path for scroll
display.
35. (Previously Presented) A data storage medium
according to Claim 28 wherein the management elements in each
pre-specified data unit include display information and scroll
display information, and
wherein the scroll display information includes
synchronous reproduction information for specifying
non-motionless display elements to be reproduced in
synchronism with a scroll display of other display elements.
36. (Previously Presented) A display device for displaying
display elements stored on a data storage medium as defined in
any one of claims 28, 29, 31, 32, 33, 34 or 35, comprising a
display controller for performing a scroll display of said selected
ones or contiguous groups of said display elements based on said
information for selecting among the display elements for scroll
display .

37. (Previously Presented) A display device as defined in claim 36, further comprising a scroll indicating means for scroll display , and wherein said scroll display is conducted based on said information included in said management elements for selecting among the selected ones or contiguous groups of said display elements for scroll display only while a user instructs said display controller to perform scroll display in either forward or backward directions along a scroll path.
38. (Currently Amended) A data storage medium for use with a display device, said data storage medium having display data associated with ~~an~~ entire a single complete document recorded thereon, said display data including a plurality of image data objects for display on a display screen of said display device and all management information associated with each of said image data objects required by said display device for the display, including the scroll display, thereof, comprising:
- a computer readable medium on which said display data is recorded in the form of distinct files, each said distinct file containing a pre-selected portion of said display data including at least one of said plurality of image data objects along with all of the respective associated management information required by said display device for the display, including the scroll display, thereof,

wherein said management information for the scroll display of said image data objects includes scroll path information defining a plurality of intervals that together form a scroll path, said intervals being specified by line segments respectively defined by coordinate values of a starting point and an end point in a coordinate system defined by said distinct file according to coordinate values assigned to said image data objects or contiguous groups of said image data objects in said distinct file.

39. Canceled, without prejudice.

40. Canceled, without prejudice.

41. (Previously Presented) A data storage medium

as defined in claim 38, characterized in that the management information associated with the image data objects contained in each one of said distinct files includes information for linking a scroll display of selected ones or contiguous groups of image data objects contained in that file with selected ones or contiguous groups of image data objects located on a scroll path contained in at least another one of said distinct files.

42. (Previously Presented) A data storage medium
as defined in claim 38, characterized in that the management
information associated with the image data objects or contiguous groups
of image data objects in each said distinct file required for the scroll
display of said image data objects or contiguous groups of said image
data objects includes scroll display speed information.
43. (Previously Presented) A data storage medium as defined in claim 38,
characterized in that the management information required by said
display device for the scroll display of said image data objects or
contiguous groups of said image data objects includes information
specifying a scroll display area on a display screen of said display device
within which said scroll display of said image data objects or said
contiguous groups of said image data objects is to occur.
44. (Previously Presented) A data storage medium as defined in claim 38,
characterized in that the management information required by said
display device for the scroll display of said image data objects or said
contiguous groups of said image data objects includes information
specifying a scale of enlargement or reduction of a display area for scroll
display on a display screen of said display device within which said
scroll display is to occur.

45. (Previously Presented) A data storage medium
as defined in claim 38, characterized in that said management information required for scroll display by said display device associated with said image data objects or contiguous groups of said image data objects includes synchronous reproduction information for specifying other image data objects to be displayed in synchronism with the scroll display of each said image data object or contiguous groups of image data objects.
46. (Previously Presented) A display device for displaying
image data objects or contiguous groups of image data objects contained in at least one distinct file recorded on a data storage medium as defined any one of claims 38, 39, 41, 42, 43, 44 or 45, comprising a display controller performing scroll display of said image data objects or contiguous groups of said image data objects located on a scroll path based on management information associated with those image data objects or contiguous groups of said image data objects required by said display device for the scroll display thereof.
47. (Previously Presented) A display device as defined in claim 46, further comprising a scroll indicating means for monitoring the scroll display of said image data objects or contiguous groups of said image data objects on a display screen of said display device, wherein said scroll display is conducted based on the management information required for display, including scroll display, only while a user instructs said display controller to perform said scroll display in either forward or backward directions along a selected scroll path.

48. (Previously Presented) A data storage medium according to claim 28,
wherein the information necessary for display, including scroll
display, specifies a scroll path of said selected ones or contiguous
groups of said data elements including vectors connecting said
intervals identified by starting and ending coordinate values of
said selected ones or contiguous groups of said data elements in a
coordinate system defined by said display elements according to
coordinate values assigned to the display elements in each of said
pre-specified data units.
49. (Previously Presented) A data storage medium
according to claim 48, wherein a sequential display of said
selected ones or contiguous groups of said display elements is
conducted along the predetermined sequence of intervals
determined by said vectors.
50. (Previously Presented) A data storage medium
according to claim 28, wherein said information necessary for
said display device to select among said display elements for the
display, including the scroll display, thereof specifies a scroll path
for the display of said selected ones or contiguous groups of said
display elements including vectors connecting the intervals
identified by starting and ending coordinate values of said selected
ones or contiguous groups of said display elements in a coordinate
system defined by said display elements according to coordinate
values assigned to the display elements in each of said pre-
specified units; and

wherein a sequential display of said selected ones or contiguous groups of said display elements is conducted along the predetermined sequence of intervals determined by said vectors.

51. (Previously Presented) A data storage medium according to claim 38, wherein said management information required by said display device for the display, including the scroll display, of said image data objects or contiguous groups of said image data objects specifies the scroll path of the display of the image data objects or contiguous groups of the image data objects as including vectors connecting the intervals identified by starting and ending points of coordinate values of said image data objects in a coordinate system defined by said coordinate values assigned to said image data objects in each of said distinct files.
52. (Previously Presented) A data storage medium according to claim 51, wherein a sequential display of said image data objects or contiguous groups of image data objects is conducted along a predetermined sequence of said intervals determined by said vectors.

53. (Previously Presented) A data storage medium

according to claim 38, wherein the management information required by said display device for the display, including the scroll display, of said image data objects or contiguous groups of said image data objects specifies the scroll path of the display of the image data objects or the contiguous groups of image data objects including vectors connecting the intervals identified by starting and ending coordinate values of said image data objects in a coordinate system defined in said image data objects according to coordinate values assigned to said image data objects in each of said distinct files, and wherein a sequential display of said image data objects or contiguous groups of image data objects is conducted along a predetermined sequence of said intervals determined by said vectors.

54. (Previously Presented) A data storage medium

as defined in claim 28, characterized in that the scroll display control information includes a scale of enlargement or reduction of a display area for scroll display on a screen of said display device.

55. (Previously Presented) A data storage medium

as defined in claim 38, characterized in that the management information required by said display device for the display, including the scroll display, of said image data objects or contiguous groups of image data objects includes a scale of enlargement or reduction of a display area for scroll display on a screen of said display device.

REMARKS

This is in response to the Official Action currently outstanding with respect to the above-identified application, which Official Action the Examiner has designated as being FINAL.

Claims 28, 31-38 and 41-55 were present in this application as of the time of the issuance of the currently outstanding FINAL Official Action. Claims 28, 31-38 and 41-55 currently stand rejected by the Examiner. Applicants request the entry of the foregoing Amendment of Claims 28, 32 and 38 so as to place this application in condition for allowance, or at least in better form for Appeal, pursuant to 37 CFR 1.116. Applicants propose that no new claims be added, and that no claim be withdrawn or canceled by the foregoing Amendment. Accordingly, in the event that the Examiner grants the entry of the foregoing Amendment, Claims 28, 31-38 and 41-55 as hereinabove amended will constitute the claims under active prosecution in this application.

The claims of this application are reproduced above including appropriate status identifiers and showing the Amendments sought as required by the Rules.

More specifically, it is noted that in the currently outstanding Official Action, the Examiner has:

1. Acknowledged Applicants' claim for foreign priority under 35 USC §119(a)-(d), and confirmed that the required certified copies of the priority document have been received by the United States Patent and Trademark Office;

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2. Again failed to re-confirm that the drawings originally filed with this application on 14 September 2000 have been accepted – **The Examiner's acceptance of the drawings as filed on 14 September 2000 appears in an Official Action in the parent of this continued prosecution application;**
3. Rejected Claims 28, 31, 33-36, 38, 41, 43-46 and 48-55 under 35 USC §102(b) as being anticipated by the "Portable Document Format Reference Manual, Version 1.2", which is attributed to Bienz et al. (hereafter referred to as "Bienz");
4. Rejected Claims 37 and 47 under 35 USC §103(a) as being unpatentable over Bienz, and also over U.S. Patent No. 5,634,064, which is attributed to Warnock et al. (hereafter referred to as "Warnock");
5. Rejected Claims 32 and 42 under 35 USC §103(a) as being unpatentable over Bienz, and also over Japanese Patent No. 5-323941, which is attributed to Michihiro Ota (hereafter referred to as "Ota").
6. Provided Applicants with his Response to their Previous Arguments.

Further comment in these Remarks regarding items 1-2 above is not considered to be necessary in these Remarks.

Applicant appreciates the Examiner's thorough examination of the subject application and respectfully requests reconsideration of the subject application based on the foregoing amendments and the following remarks.

Applicants agree with the Examiner to the extent that the Mastie reference is correctly not applied in the currently outstanding Official Action and therefore is extraneous at this time.

In the latter regard, however, Applicants respectfully note that the Examiner has indicated that "...Mastie's invention is entirely directed to combining a plurality of page files into a single document file and suggests that it is conventional, and thereby desirable, to store a plurality of such individual pages as part of a document. The Examiner therefore maintains that Mastie teaches a data storage medium having a plurality of pre-specified data units (i.e., page files) that together define a document recorded thereon." Applicants respectfully submit that this characterization of the Mastie reference is not entirely accurate.

In this regard, previously in this prosecution, the Examiner has admitted that even if the Mastie page files were to be taken as being PDF files, the formatting of all of the PDF files making up the Mastie document in the Examiner's postulated example would have to be altered so as to conform to the overall formatting of the document after the combination of the PDF page files was made. Applicants respectfully submit, therefore, that in the Examiner's example, **the individual page files would lose their respective individual identities at the time of the reformatting** such that the resulting single document file would separate all of the data from the management information necessary for the display of that data as explained in the PDF Reference Manual.

In view of the foregoing, Applicants must again respectfully submit that it would be expected that one skilled in the art would simply create a single PDF file from the beginning wherein the page objects of each page were utilized in conjunction with the common formatting of a typical PDF document.

In other words, Applicants respectfully maintain their previous position that it would make very little sense to one of ordinary skill in the art to create and store a plurality of individual PDF page files for the purpose of forming a plurality of separate documents as the Examiner has suggested and to thereafter to reformat those stored individual PDF documents into a single combined document having a single PDF document format. Clearly, it would make more sense to create a basic PDF document shell and to incorporate the page object data therein such that it all would have the same common formatting of a single PDF document from the outset.

Further, also as previously mentioned, the theoretical possibility of the combination of a plurality of individual PDF files that each define a document (i.e., a plurality of documents) stored separately so as to make up the single composite document postulated by the Examiner as meeting the limitations of the present claims has not been shown to have been adopted in, or even seriously considered by, the art even though the components thereof have been readily available for some time. Applicants respectfully submit that the reason for this is that one of ordinary skill in the art simply would not make the combination postulated by the Examiner for the reasons discussed above. The Mastie reference, now stated to be unnecessary to his rejections by the Examiner, is a clear indication of the art's tendency to move toward the concept of common formatting for all of a plurality of document files making up a single composite document that is manifest in the PDF Reference Manual.

Despite the foregoing, the Examiner has insisted in the currently outstanding Official Action that by giving the present claims their broadest reasonable interpretation one could compose a document stored amongst a plurality of separate PDF files; that is he or she would simply store various portions of the document as distinct PDF documents, i.e., write a portion of the document and store it as one PDF document, write another portion of the document and store it as another PDF document, etc. In such circumstances, the storage medium storing all the so stored PDF documents would be a data storage medium having a plurality of pre-specified data units (i.e., PDF documents) that together define a document thereon like claimed.

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In the Examiner's words, "...a data storage medium comprising a plurality of PDF files that define a plurality of documents constitutes a data storage medium having a plurality of pre-specified data units (i.e., the PDF files) that together define a document recorded thereon, like required by the claimed invention." In view of this play on words, the Examiner asserts that the present invention does not necessarily require that each pre-specified data unit is to contain **only a portion** of all the display data associated with a document because plural documents taken together can define a document. In view of this position of the Examiner, Applicants by the foregoing Amendment have amended independent claims 28 and 38 (and made Claim 35 dependent on Claim 28) for the sake of clarity so as to indicate that the claimed storage medium stores a "single complete document" so as to distinguish component "documents" (i.e., pre-specified units, distinct files) from the document of which they form a part.

The foregoing Amendment **is in no way intended to alter the present scope of the present invention or to in any way be viewed as a recognition of the propriety of the combination proposed by the Examiner as described and discussed above.** According to Section 2143.01 (III) of the Manual of Patent Examining procedure (MPEP), it is settled law that "[t]he mere fact that a reference **can** be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination". *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) Further, it is impermissible simply to engage in hindsight reconstruction of the claimed invention, using applicant's structure as a template and selected elements from the references to fill the gaps. *In re Gorman*, 18 USPQ2d 1885 (Fed. Cir. 1991)

Further, Section 2143.01(VI) of the Manual of Patent Examining Procedure makes it abundantly clear that in order for a disclosure of a reference to conform with the standards for the establishment of a *prima facie* case supporting a rejection under 35 USC 103, the proposed modification of the prior art embodied in a claim of an application cannot change the principal of operation of the prior art reference being applied. In other words, if the proposed modification or combination of the prior art relied upon by the Examiner would change the principal of operation of the prior art invention being modified in an attempt to reach the present invention, then the teachings of the combined references **are not** sufficient to establish a *prima facie* case of obviousness under the appropriate stands for the same. *In re Ratti*, 280 F.2d 810, 123 USPQ 349 (CCPA, 1959) Applicants respectfully submit that for the reasons discussed above and also that will appear hereinbelow the Examiner's current expansion of the definition of a PDF file to the extreme of being the same as a pre-specified data unit (distinct file) like herein claimed constitutes a modification the principals of operation of a PDF file that is improper under this standard.

In addition, the Examiner's insistence upon a reliance upon the "thread" and "bead" concepts of the PDF Reference Manual regarding the scrolling capabilities provided by the plurality of individual PDF files that he has postulated as making up a document as being comparable to the present pre-specified data units **appears to totally disregard Applicant's previous comments with respect to the correct interpretation of "scrolling", "intervals" and the phraseology present the currently pending claims with respect to the same.**

Hence, it remains Applicants' position that the Examiner's outstanding rejections require an improper modification of the principals of operation of the PDF document format in order for the Examiner's currently outstanding rejections to make sense in the context of the present invention.

Accordingly, it will be recognized that the present invention includes the formation of scrolling paths running from display element to display element and in so doing includes (***but is not limited to***) display paths running from display element group to display element group. Nevertheless, the Examiner insists upon a reliance upon the "thread" and "bead" concepts of the PDF Reference Manual regarding the scrolling capabilities provided by the plurality of combined individual PDF files that he has postulated as making up a single document as being comparable to the present pre-specified data units that together define a single complete document. It is to be recalled in this regard, however, that the intervals forming a scroll path in the present invention are specified by line segments respectively defined by coordinate values of a starting point and an end point according to coordinate values assigned to the display elements in the pre-specified unit.

More particularly, despite the Examiner's detailed analysis of the Portable Document Format Reference Manual, the fact remains that present invention stores the display data associated with an entire data grouping together, rather than in a form dependent upon selections from the catalog of display and formatting functions stored for the entire document as is done in a PDF document file. This display data includes image object data, management information associated with each stored image object data and scroll information associated with each image object data, **in distinct, separately controllable pre-specified units (i.e., distinct files) containing only a portion of all of the display data associated with a document to be stored on the storage medium and in direct association with the management information specifically associated therewith.**

This is different from the so-called dynamic formatting referred to by the Warlock, et al. reference as being unsatisfactory as well as being different from the disclosures of the Portable Document Format Reference Manual. In both of the latter references it is necessary to store the **entire document or the like** in a computer memory as a so-called "PDF (Portable Document Format) document" before any portion ("pre-specified data unit") can be accessed or displayed.

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Applicants therefore again respectfully submit and emphasize that a close reading of the PDF Manual clearly suggests that while the Examiner's factual analysis concerning the "bead" concept of identification of article segments and the page co-ordinate definition of each article segment may seem to be supported by the PDF Manual, the Examiner has forgotten (or not noticed) that ***no matter how one approaches the PDF format, it is necessary in the use of each page, or article portion thereof to refer back to information stored as part of the whole PDF file outside of the so-called "page objects" (Note: the PDF Reference Manual discusses PDF files as representative of entire documents including a header, a body, a cross-reference table and a trailer (see chapter 5) wherein the body is made up of various indirect objects such as fonts, pages and sampled images, see page 62).***

Thus, despite other similarities to the present invention, in the article and/or page context, the PDF Reference Manual makes it clear that each selected portion of a so-called "page" that is defined by the so-called "beads" must refer back to the so-called "Contents" parameter of the "page" of which it forms a part. Hence, each article portion must refer back at least to the page information from which it is extracted in order to be appropriately utilized in a scrolling display of an entire article (particularly an entire article having different portions on different pages). In fact, while it is possible to create PDF units containing one or more separate document pages, there is no provision in the PDF format for saving the data and management information representing defined article segments as separate pre-specified units (Claim 28) or distinct files (claim 38).

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Furthermore, while the PDF Manual at certain points seems to broadly suggest that each so-called “page” may be basically separate unto itself as an abstract concept, **the true, real world fact is that at least part of the display information and associated scroll information for each such page depends upon information created and saved in the body portion of the PDF document separately from the page objects (data) in question during the course of the creation and saving of an entire PDF format type document.**

Consequently, it will be understood that the pre-specified units of the present invention to the extent that they may individually represent pages or article portions contain within themselves all of their own display information, including scroll display control information. The PDF Document Format, on the other hand, does not contemplate that each so-called “page” is to be a pre-specified unit in the sense of the present invention. This is because the display control including scroll display information (for example, the required drivers) are embedded in the PDF file and associated with the data to be displayed by higher level operators associated with the data via catalogs that assemble the various objects making up the body of the PDF file to achieve the desired complete document display.

Thus, while the PDF Reference Manual at first reading appears to be discussing the manipulation of documents, pages of documents and article threads running through the documents, a more detailed reading of that manual indicates that the foregoing is but the highest level of explanation of the actual PDF concept. ***This is readily apparent to anyone who has used a PDF document obtained from an outside source from the fact that the entire document has to be downloaded and processed by the computer involved before any part of the PDF document can be accessed for use.***

When reduced to its basics, therefore, Applicants respectfully submit that the PDF concept stores “documents” in the form of “pages” (i.e., groups of page objects) separately from at least some of the data contemplated as being necessary for display of the individual image data (page objects), and separately from all of the other information necessary for the association of that image data (“page objects”) in the form of appropriate control sequences including the parameters required to achieve the association and control of the display of various combinations of the image data (“page objects”) as desired.

Accordingly, Applicants respectfully submit that the PDF Manual clearly indicates that the PDF concept might be characterized as including a PDF file containing all of the information making up the document in a database sort of collection (the so-called “body”) including various levels of association of that data that can be accessed and displayed or otherwise used. Hence, it is clear that the so-called “threads” connecting the various portions of an article in the PDF Reference Manual are not the same as (or even akin to) the vectors within the article components (pre-specified units, distinct files) of the present invention. In support of the latter interpretation, Applicants respectfully call attention to the fact that at page 27 of the PDF Manual it is indicated that a PDF file contains a PDF document ***and other supporting data.***

Further, the PDF Manual states that ***in addition to a document a PDF file contains the version of the PDF specification and information about the location of important structures within the file.*** Further still, at page 28 the PDF Manual indicates that the required printer driver consists of a stream of commands ***that are converted into PDF operators which are embedded in the PDF file.*** Also, page 62 the PDF Manual indicates that the body of a PDF file consists of a sequence of indirect objects representing a document, and that ***those objects represent components of the document such as fonts, pages and sampled images.***

Therefore, Applicants again respectfully submit that it is not surprising that in the discussion of optimized PDF files the PDF Manual notes that it is contemplated that ***the various “pages” of a PDF document will share objects and resources.*** It also is not surprising that the various pages are contemplated to have ***common attributes and that those common attributes may and will be “inherited” from the preceding page unless otherwise specified.*** See, pp 77-78; Section 7.4 and pp. 254, 270 and 274.

Consequently, as emphasized above, the PDF Manual does not disclose that the management information including scroll display information associated with each image data object or contiguous group of data objects is maintained in association with that image data object or group of objects in a pre-specified unit (distinct file) within which it is stored, nor does the PDF Manual disclose that a complete formatted document, document portion or the like may be separately reproduced by an associated display device using only the management information including scroll display information contained in each of various pre-specified units (i.e., distinct files) in linked association with one another. The PDF document must be stored and utilized as a complete whole even in those cases wherein only a specific article or the like is actually displayed and read by the user.

Perhaps most importantly regarding the currently outstanding rejections, Applicants respectfully refer the Examiner to pages 81-97 of the present specification whereat it is explained that the arrows in the Partial Blocks identified in Fig. 37 within the respective pre-specified display units are the “intervals” that together form a “scroll path” of the display element content along which said scroll display is to be conducted in the present invention and the method by which that objective is accomplished is disclosed.

Hence, it is to be emphasized that, the "scroll path" in the present claims is the path made up of the sequential display of the actual display elements that are to be displayed, not the path connecting rectangles surrounding various portions of an article content to be displayed together as a group simultaneously according to their respective positions along the "scroll path" (or thread) of a PDF document. In addition, the present invention envisions that the scroll path may be directed from pre-specified unit to pre-specified unit. Such is not possible in the context proposed by the Examiner wherein distinct PDF files are postulated to constitute the pre-specified units. That is to say, the "bead" and "thread" concepts of the PDF Reference Manual only function within the confines of the PDF file involved with its common formatting. Once one strays into the area of multiple PDF files, the PDF Reference Manual does not contemplate threads connecting beads in different PDF files.

To clarify the latter point, the claims of this application were previously amended so as to clearly indicate that the "intervals" as herein claimed refer to portions of the actual display element content that together make up a "scroll path" that defines the display element content of the respective pre-specified display data units or portions thereof that are to form the actual content of the "scroll display" (i.e., the predetermined sequence of data elements)". (See also, for example, Claim 31 regarding linkage between scroll paths in the present invention)

Thus, each "interval" in the present invention has a direction associated with it, and some or all of those directions may be the same or different depending upon the particular scroll path (data content) to be displayed. Accordingly, the portion of the present invention that links the "intervals" with one another is part of the information for selecting among the display elements for scroll display to be found in the "predetermined sequence" in which the display elements are displayed. Further, as now clarified, the information for selecting among the display elements for scroll display linking the "intervals" may take the form of information specifying vectors associated with the content of the pre-specified units or distinct files herein claimed.

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Accordingly, in addition to the reasons discussed above that distinguish the present invention from the disclosure of the PDF Reference Manual, Applicants respectfully submit that the present invention is clearly and unambiguously distinct from any and/or all of the art cited by the Examiner taken alone, or any combination, by the fact that the “scroll path” hereinabove claimed is a scroll path defined by “a starting point and an end point in a coordinate system defined by said pre-specified unit according to coordinate values assigned to the display elements in said pre-specified unit” (i.e., the coordinate system used to define the scroll path is the coordinate system defined by the pre-specified unit itself and the intervals are the directors that establish the scroll path). This is to be distinguished from a scroll path of the PDF Reference Manual that is alleged by the Examiner to be defined by “a start point (i.e., an upper right corner) and an end point (i.e., a lower left corner) – see Official Action at page 5, line 11-14).

More specifically, the “R” parameter referred to by the Examiner in this regard defines a region (a location of a bead within the coordinate system of the PDF document) not the “interval” herein claimed as discussed above. Hence, it will be understood that it is nowhere described in the PDF Reference Manual that scroll display is to be initiated at the upper right corner specified by the “R” parameter as one of the corners of the block of display data constituting the associated “bead” (or for that matter at any other particular location) and progress along a defined path to an end point from which the thread leads to the next bead. Instead, in the PDF environment, the various portions or sections of a document defined by the “R” parameter are displayed simultaneously as groups (blocks) wherein 4 values identify the coordinate values of the corners of a rectangle surrounding the associated simultaneously displayed article content in a coordinate system assigned to the content of the entire document of which those portions form a part by the PDF file as described in the PDF Reference Manual. Again, Applicants are unaware of any portion of the PDF Reference Manual that makes it possible to extend the scroll path outside of the confines of the commonly formatted PDF file wherein it is then currently located.

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It is to be noted in the latter regard again that while the Examiner would like to say that each pre-specified unit is a PDF file, the fact is that as discussed above even if the situation starts out with each pre-specified unit being a separate PDF file, when those files are combined to make a single document (as now specifically claimed) they lose their individuality due to the necessity for common formatting as discussed above with regard to Mastie reference, i.e., the necessity of common formatting of all of the "sub" PDF files in the course of the creation of the composite PDF file proposed by the Examiner just discussed. Thus, the scrolling of the present invention is from element to element within each pre-specified unit at a controlled speed while the scrolling in the PDF environment is from block to block as defined by the "R" parameter in the coordinate system of the entire document defined by the PDF file, not the coordinate system within the pre-specified unit as herein claimed.

Perhaps more clearly and distinctly stated, the "scrolling" of the present invention is directed to a "scroll path" formed within the actual display element content as described in the present specification and claims rather than to a scroll path between "beads" defining blocks of simultaneously displayed element data joined by "threads" leading sequentially from one bead to the next. Therefore, it will be understood that the "scroll path" as defined and contemplated by the present invention delineates the actual display content obtained by scrolling with the gaps therebetween delineated by vectors (links) pointing to the next sequential portion of the actual display data. Accordingly, the "scroll path" contemplated by the present specification and claims is not a series of blocks ("beads") of data that are each to be presented to the user simultaneously as units (separate blocks) intermittently so as to be readable by a user in a sequence determined by so-called "threads" connecting the various "beads" as in the PDF Reference Manual disclosure (a concept contrary to the "R" parameter being used to delineate a single display element as suggested by the Examiner) Rather, the "scroll path" of the present invention is the actual content of a prescribed path from display element to display element, not block of display elements to block of display elements as in the PDF Reference Manual context.

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Hence, the sequential display of blocks of text that make up an article of interest is not the same as the sequential display of the words that make up the text of the article of interest. In the one the blocks of information are presented simultaneously as a group for the use of the user intermittently so as to provide the user with time to read the same, in the other, the sequence of use and the speed of the presentation of the content of the article is predetermined for the user and presented in the sequence in which it is to be used at a predetermined speed.

Applicants respectfully submit that the foregoing concepts (that are believed to be clearly determinative of the distinct differences between the present invention and the PDF Reference Manual disclosure) have been totally disregarded (or not recognized) by the Examiner heretofore during this prosecution. Applicant also respectfully submits in this regard that once these concepts are appreciated by the Examiner, the patentability of the present invention over the art currently of record will be readily and completely apparent. This is particularly the case because the present claims now have been amended such that it is clear that each pre-specified unit cannot be a separate PDF file because all of the pre-specified units are claimed to make up a "single complete" document. For this to occur starting with multiple PDF files, those files would have to be merged so as to have a common format as suggested by the Mastie reference that in the PDF context takes the management information away from the data contrary to the present claims.

In view of the foregoing Amendment and Remarks, therefore, it is respectfully submitted that all of the claims that will be present in this application upon the entry of the foregoing Amendment now are in condition for allowance. Accordingly, entry of the foregoing Amendments, reconsideration and allowance of this application in response to this communication are respectfully requested.

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Applicants also believe that additional fees beyond those submitted herewith are not required in connection with the consideration of this response to the currently outstanding Official Action. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit Deposit Account No. **04-1105**, as necessary, for the correct payment of all fees which may be due in connection with the filing and consideration of this communication.

Respectfully submitted,

Date: February 25, 2008


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